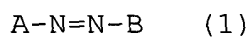


CLAIMS:

1. A hair dyeing composition comprising a dissociative azo
5 dye represented by formula (1)

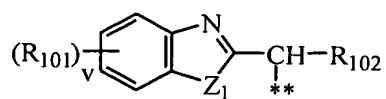


wherein "A" represents a phenyl or naphthyl group which
may be substituted; "B" represents an atomic group containing
a dissociative proton, with the proviso "A" and "B" are free
10 of sulfo, carboxyl and quaternary ammonium groups.

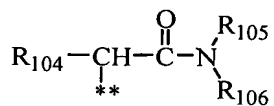
2. The hair dyeing composition according to claim 1,
wherein "B" is selected from groups (B-1) to (B-12) binding
via symbol ** to the azo group consisting of:

15

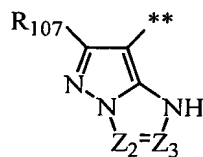
(B-1)



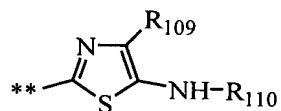
(B-2)



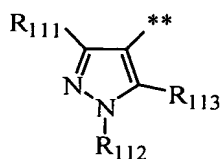
(B-3)



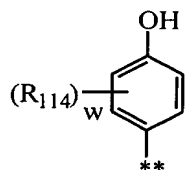
(B-4)



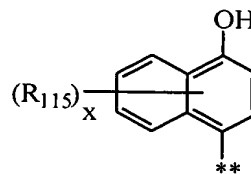
(B-5)



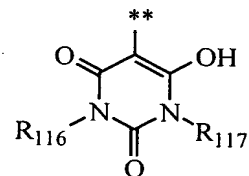
(B-6)



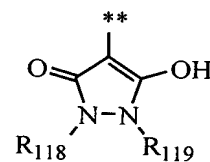
(B-7)



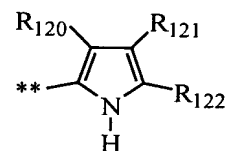
(B-8)



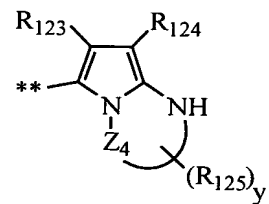
(B-9)



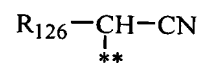
(B-10)



(B-11)



(B-12)



wherein R_{101} represents a halogen atom, alkyl group, aryl group, hetero-ring group, cyano group, alkoxy group, amino group (including anilino group), acylamino group,

alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, sulfamoyl group, alkylsulfonyl group, or carbamoyl group, R_{102} and R_{104} each independently represent cyano group, alkylsulfonyl group, arylsulfonyl group, acyl group, alkoxycarbonyl group, aryloxy carbonyl group, or carbamoyl group. Z_1 represents oxygen atom, sulfur atom, or $-N(R_{103})-$, wherein R_{103} represents hydrogen atom, alkyl group, aryl group or hetero-ring group, "v" represents an integer of 0 to 4, wherein several R_{101} groups may be the same or different;

R_{105} and R_{106} independently represent a hydrogen atom, alkyl group, aryl group, or hetero-ring group;

R_{107} represents a hydrogen atom, alkyl group, aryl group, hetero-ring group, alkoxy group, aryloxy group, amino group (including anilino group), acylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, alkylsulfonyl group, arylsulfonyl group, or carbamoyl group; Z_2 and Z_3 independently represent $-C(R_{108})=$ or $-N=$; R_{108} represents alkyl group, aryl group, hetero-ring group, alkylthio group, arylthio group, alkoxycarbonyl group, or carbamoyl group, wherein if Z_2 and Z_3 both represent $-C(R_{108})=$, two R_{108} groups may be the same or different or may bind together to form a carbon ring or a hetero-ring;

R_{109} represents an alkyl group, aryl group or hetero-ring group, and R_{110} represents a hydrogen atom, alkyl group, aryl

group, hetero-ring group, acyl group, alkylsulfonyl group or arylsulfonyl group,

R_{111} represents a hydrogen atom, alkyl group, aryl group, alkoxy group, amino group (including anilino group),
5 alkoxy carbonyl group, cyano group, acylamino group, or carbamoyl group; R_{112} represents hydrogen atom, alkyl group, aryl group, or hetero-ring group; R_{113} represents hydroxy group or amino group,

R_{114} and R_{115} represent a halogen atom, alkyl group, aryl
10 group, hetero-ring group, nitro group, alkoxy group, aryloxy group, amino group (including anilino group), acylamino group, alkoxy carbonylamino group, aminocarbonylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, hetero-ring thio group, alkoxy carbonyl
15 group, or carbamoyl group; "w" represents an integer of from 0 to 4, wherein several R_{114} groups in the number "w" may be the same or different; "x" represents an integer of from 0 to 6, wherein several R_{115} groups in the number "x" may be the same or different,

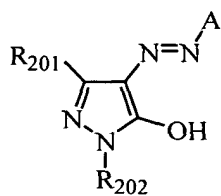
20 R_{116} , R_{117} , R_{118} , and R_{119} independently represent an alkyl group or aryl group, R_{120} and R_{121} independently represent an alkyl group, aryl group, hetero-ring group, cyano group, alkylsulfonyl group, arylsulfonyl group, alkoxy carbonyl group, or carbamoyl group; R_{122} represents a hydrogen atom,
25 alkyl group, aryl group, hetero-ring group, acylamino group, alkylsulfonylamino group, or arylsulfonylamino group,

R_{123} and R_{124} independently represent an alkyl group, aryl group, hetero-ring group, cyano group, alkylsulfonyl group, arylsulfonyl group, alkoxycarbonyl group, or carbamoyl group; Z_4 represents a non-metal atomic group forming a 5-membered or 6-membered ring, together with the two nitrogen atoms and one carbon atom, R_{125} represents an alkyl group, aryl group, alkoxy group, amino group, acylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, acyl group, alkoxycarbonyl group, or carbamoyl group; "y" represents an integer of from 0 to 2, when Z_4 forms a 5-membered ring; and "y" represents an integer of from 0 to 3, when Z_4 forms a 6-membered ring, and R_{126} represents an alkyl group, aryl group, cyano group or alkoxy carbonyl group;

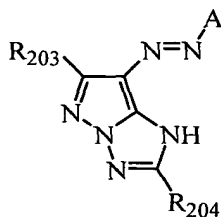
and wherein R_{101} to R_{126} in formulas (B-1) to (B-12) may have additional substituents.

3. The hair dyeing composition according to claim 1, wherein the structure of the dye is represented by any one of DS-1 to DS-9:

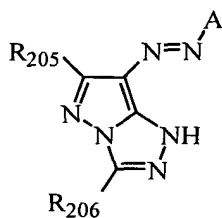
DS-1



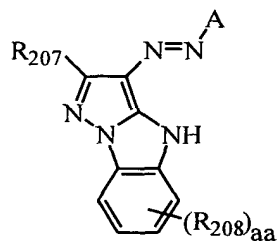
DS-2



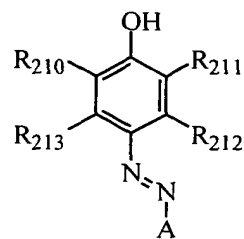
DS-3



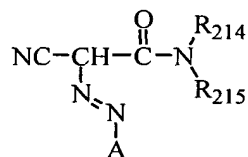
DS-4



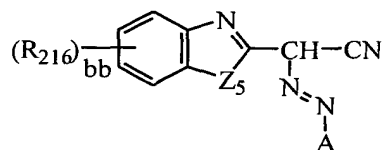
DS-5



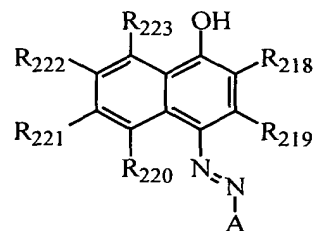
DS-6



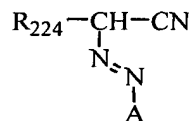
DS-7



DS-8



DS-9



wherein "A" has the same meaning as defined in claim 1;

R₂₀₁ represents a hydrogen atom, alkyl group, aryl group, alkoxy group, amino group (including anilino group),
 5 alkoxycarbonyl group, cyano group, acylamino group, or

carbamoyl group; R₂₀₂ represents a hydrogen atom, alkyl group, aryl group, or hetero-ring group;

R₂₀₃, R₂₀₅ and R₂₀₇ represent a hydrogen atom, alkyl group, aryl group, hetero-ring group, alkoxy group, aryloxy group, amino group (including anilino group), acylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, alkylsulfonyl group, arylsulfonyl group, or carbamoyl group; R₂₀₄ represents an alkyl group, aryl group, or hetero-ring group;

R₂₀₆ represents an alkyl group, aryl group, hetero-ring group, alkylthio group, arylthio group, alkoxycarbonyl group, or carbamoyl group;

R₂₀₈ represents a halogen atom, alkyl group, aryl group, hetero-ring group, alkoxy group, aryloxy group, amino group (including anilino group), acylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, alkylsulfonyl group, arylsulfonyl group, alkoxycarbonyl group, or carbamoyl group; "aa" represents an integer of from 0 to 4, provided that aa is 2 to 4, the R₂₀₈ groups may be the same or different;

R₂₁₀ and R₂₁₁ independently represent a hydrogen atom, halogen atom, alkyl group, aryl group, acylamino group, alkoxycarbonyl group, aminocarbonylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkoxycarbonylamino group, or carbamoyl group; R₂₁₂ and R₂₁₃ independently represent a hydrogen atom, halogen atom, alkyl

group, alkoxy group, or acylamino group;

R₂₁₄ and R₂₁₅ independently represent a hydrogen atom, alkyl group, aryl group, or hetero-ring group;

R₂₁₆ represents a halogen atom, alkyl group, aryl group, hetero-ring group, cyano group, alkoxy group, amino group (including anilino group), acylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkylthio group, arylthio group, sulfamoyl group, alkylsulfonyl group, or carbamoyl group; Z₅ represents an oxygen atom, sulfur atom, or -N(R₂₁₇)-, where R₂₁₇ represents a hydrogen atom, alkyl group, aryl group, or hetero-ring group; "bb" represents an integer of from 0 to 4; provided that if "bb" is a plural number, the R₂₁₆ groups in the number "bb" may be the same or different;

R₂₁₈ represents a hydrogen atom, halogen atom, alkyl group, aryl group, acylamino group, alkylsulfonylamino group, arylsulfonylamino group, alkoxycarbonylamino group, aminocarbonylamino group, carbamoyl group, or sulfamoyl group; R₂₂₀ and R₂₂₃ independently represent a hydrogen atom, halogen atom, acylamino group, alkoxycarbonylamino group, aminocarbonylamino group, alkylsulfonylamino group, or arylsulfonylamino group; R₂₁₉, R₂₂₁, and R₂₂₂ independently represent a hydrogen atom, chlorine atom, bromine atom, alkyl group, or acylamino group; and

R₂₂₄ represents an alkyl group, aryl group, cyano group or alkoxycarbonyl group

wherein R_{201} to R_{224} in formulas DS-1 to DS-9 may have additional substituents.

4. The hair dyeing composition according to claim 1,
5 wherein the azo dye of formula (1) is present in an amount of
from about 0.0001 to 20 % by weight, based on the whole
composition.

5. The hair dyeing composition according to claim 1,
10 further comprising at least one direct dye other than the azo
dye of general formula (1) and/or at least one oxidative dye.

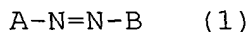
6. The hair dyeing composition as claimed in claim 5,
wherein the total amount of the dyes present in said
15 composition is from about 0.001% to 20 % by weight, based on
the whole composition.

7. The hair dyeing composition according to claim 1,
further comprising an alkaline agent in an amount of from
20 about 0.01% to 20 % by weight, based on the whole
composition.

8. The hair dyeing composition as defined in claim 1, being
a one part composition, a two part composition or a three
25 part composition, wherein the two part composition comprises
a first part containing an alkaline agent and a second part

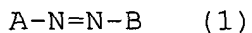
containing an oxidative agent, and wherein the three part composition contains the first and second parts and additionally a third part containing a powdery oxidizing agent, wherein in each of the said composition the direct dye
5 having formula (1) is contained in either one of the respective parts or in each part.

9. A method for dyeing human or animal hair, comprising applying a composition comprising an azo dye represented by
10 formula (1) to the hair, rinsing the hair after completion of the dyeing and drying the hair:



wherein "A" represents a phenyl or naphthyl group which may be substituted; "B" represents an atomic group containing
15 a dissociative proton, with the proviso "A" and "B" are free of sulfo, carboxyl and quaternary ammonium groups.

10. Use of an azo dye represented by formula (1)



20 wherein "A" represents a phenyl or naphthyl group which may be substituted; "B" represents an atomic group containing a dissociative proton, with the proviso "A" and "B" are free of sulfo, carboxyl and quaternary ammonium groups, for dyeing human or animal hair.